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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,853	06/20/2005	Wolfgang Kleinert	100143.00010	6522

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EXAMINER

SAINT SURIN, JACQUES M

ART UNIT	PAPER NUMBER
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2856

MAIL DATE	DELIVERY MODE
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/539,853	Applicant(s) KLEINERT, WOLFGANG	
	Examiner Jacques M. Saint-Surin	Art Unit 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>06/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the alphanumeric character must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance. Accordingly, claims 25 and 37 have not been further treated on the merits.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 23-24, 27-32 and 39-43 are rejected under 35 U.S.C. 102(e) as being anticipated by Burschke et al. Pub. No. US 2006/0109002 A1.

Regarding claim 23, Burschke discloses an ultrasound inspection apparatus (see: Fig. 1) for non-destructive inspection of a test body (30), the apparatus comprising:

a probe (26);

a transmitter (36) operably connected to the probe (26), the transmitter (36) generates transmitter pulses and delivers the transmitter pulses to the probe (26);

a receiver (38) operably connected to the probe (26), the receiver (38) receives echo signals; and a monitor (22) with a display (24) operably connected to the receiver (38) for representing the echo signals received, wherein the probe (26) delivers ultrasonic pulses and insonifies them at a certain angle into a test body (30), the pulses penetrating the test body (30) where the test pulses are at least once reflected from a rear wall of the test body forming, as a result thereof, at least one first leg that extends from an entrance surface to the rear wall and a second leg that extends from the rear

wall to the entrance surface (see: paragraph 0001), wherein the echo signals received are represented on the display so as to show from which leg the echo signals originate (a fraction of each pulse is generally reflected at the entrance surface 32 and reaches as an entrance echo 40 the receiver in time before other signals, the receiver is connected to the monitor 22, the signal corresponding to the entrance echo 40 is visible on the monitor (see: paragraph 0030).

Regarding claims 24 and 36, Burschke discloses the ultrasonic inspection apparatus as set forth in claim 23, wherein the echo signals on the display are represented in a diagram in the form of a measured curve, with time being plotted on a horizontal axis and voltage values on a vertical axis (see: paragraph 0033).

Regarding claims 27 and 39, Burschke discloses the ultrasonic inspection apparatus as set forth in claim 24, wherein portions of the measured curve that originate from a certain leg are shown on a background that is typical for a respective one of the legs (see: paragraphs 0031 and 0034).

Regarding claims 28 and 40, Burschke discloses the ultrasonic inspection apparatus as set forth in claim 24, wherein in the regions that originate from a certain leg, the measured curve is shown by a kind of line that is typical for a respective one of the legs (see: paragraphs 0031 and 0034).

Regarding claims 29-30 and 41, Burschke discloses the ultrasonic inspection apparatus as set forth in claim 23, wherein the display is a color display and the ultrasonic inspection apparatus as set forth in claim 24, wherein the display is a color display (see paragraph 0014).

Regarding claims 31 and 42 and, Burschke discloses the ultrasonic inspection apparatus as set forth in claim 30, wherein portions of the measured curve that originate from a certain leg are placed on a colored background that is typical for a respective one of the legs (see: paragraphs 0014, 0039 and 0045).

Regarding claims 32 and 43, Burschke discloses the ultrasonic inspection apparatus as set forth in claim 30, wherein in the regions that originate from a certain leg, the measured curve is shown by a color that is typical for a respective one of the legs (see: paragraphs 0039 and 0045).

4. Claims 23-24, 35-36 and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Berke (US Patent 7,240,554).

Regarding claims 23 and 35, Berke discloses an ultrasonic inspection apparatus (see: Fig. 1) for non-destructive inspection of a test body, the apparatus comprising:

a probe (28);

a transmitter (32) operably connected to the probe (28), the transmitter (32) generates transmitter pulses and delivers the transmitter pulses to the probe (28);

a receiver (34) operably connected to the probe (28), the receiver (34) receives echo signals; and a monitor (38) with a display (col. 3, line 47) operably connected to the receiver (34) for representing the echo signals received, wherein the probe (28) delivers ultrasonic pulses and insonifies them at a certain angle (col. 3, line 38) into a test body (20), the pulses penetrating the test body (20) where the test pulses are at least once reflected from a rear wall of the test body forming (col. 4, lines 25-34), as a result thereof, at least one first leg that extends from an entrance surface to the rear

wall and a second leg that extends from the rear wall to the entrance surface (col. 4, lines 37) , wherein the echo signals received are represented on the display so as to show from which leg the echo signals originate (col. 4, lines 41-47).

Regarding claim 35, it is similar in scope with claim 23 and therefore, it is rejected for the reasons set forth for that claim. Furthermore, Berke discloses s can be seen from FIG. 1, the probe 28 emits ultrasonic pulses along the main beam 30. These ultrasonic pulses impinge either directly the crack 26 or the back face 24. In both cases, they are reflected toward the back face 24 or toward the crack 26 and are caused to return into the probe 28 after angular reflection (col. 4, lines 25-30).

Regarding claims 24 and 36, Berke discloses the ultrasonic inspection apparatus as set forth in claim 23, wherein the echo signals on the display are represented in a diagram in the form of a measured curve, with time being plotted on a horizontal axis and voltage values on a vertical axis (see: Fig. 3).

Regarding claims 33 and 44, Berke discloses the ultrasonic inspection apparatus as set forth in claim 23, further comprising: a means for determining a respective position of the probe on the surface of the test body, the means being operably connected to the probe (col. 4, lines 48-60).

Allowable Subject Matter

5. Claims 26, 34, 38 and 45 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Erdol et al. (US Patent 5,103,427) discloses a method and apparatus generating high resolution data and echo identification.

Lather et al. (US Patent 4,147,065) discloses ultrasonic testing.

Kleinert et al. (US Patent 5,511,425) discloses flaw detector incorporating dgs.

Cichanski (US Patent 4,866,986) discloses a method and system for dual phase scanning acoustic microscopy.

Iwamoto et al. (US Patent 6,318,514) discloses tube flaw detecting method using two probes.

Moran et al. (US Patent 4,947,351) discloses ultrasonic scan system for nondestructive inspection.

Schulze (US Patent 6,304,514) discloses ultrasonic measuring device with transmitters and receivers for locating the geometric position of the border between a first and second material from a reference location.


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacques M. Saint-Surin whose telephone number is (571) 272-2206. The examiner can normally be reached on Mondays to Fridays between 10:30 A.M and 8:00 P.M..

Application/Control Number:
10/539,853
Art Unit: 2856

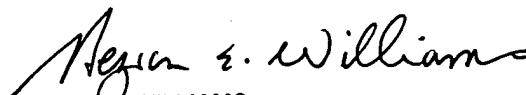
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jacques M. Saint-Surin
January 04, 2008



HEZRON WILLIAMS
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